



HYDROGEN CLUSTER BRANDENBURG

Driving the decarbonisation of industry in a strong industrial alliance

The Brandenburg hydrogen cluster focuses on the future-oriented decarbonization of energy-intensive industry in the state of Brandenburg. The implementation of hydrogen projects is being driven forward together with the partners involved - economical and harmonized. The aim is to connect the industrial H₂-production sites in Brandenburg with the companies that require renewable hydrogen for production and to integrate them into the (eastern) German hydrogen infrastructure and connect them to the future European hydrogen backbone.



COMPETITIVE ADVANTAGE: HYDROGEN INFRASTRUCTURE

Hydrogen will play an important role as an energy carrier in the decarbonized energy system of the future and offers great potential for value creation that needs to be leveraged. As a traditional energy state, Brandenburg has already created the right framework conditions for this. This applies to both the hydrogen infrastructure and the use of hydrogen.

Large industrial companies as well as small and medium-sized enterprises and commercial locations benefit from an infrastructure in Brandenburg that ranges from hydrogen production and storage to its use by end users.

— H₂ Core Network Germany by 2032
 — H₂ Vision State of Brandenburg by 2045

TARGETED DEVELOPMENT BY 2030



136,320 tons/year

H₂-Production



180,500 tons/year

Industrial H₂-Consumption



H₂-Infrastructure

•• ONTRAS



H₂-Storage

EWE



H₂-Refinery

PCK



H₂-Industrial application

CEMEX

BASF
We create chemistry



H₂-Steel industry

ArcelorMittal



H₂-Production

ENERTRAG

LEAG

VNG

More information at www.h2-bb.de





ONTRAS Gastransport GmbH | Leipzig-based ONTRAS Gastransport GmbH operates the 7,700-kilometre long pipeline network in eastern Germany. With the H2 start network, ONTRAS is laying the foundation for the eastern German hydrogen infrastructure.



ArcelorMittal Eisenhüttenstadt GmbH | ArcelorMittal is planning a technology change to use hydrogen for steel production. In future, H₂ is to be used to produce Direct Reduced Iron (DRI) as input for steel production without CO₂ emissions. In Eisenhüttenstadt, the group plans to use 110,000 tons of hydrogen annually for this climate-neutral steel production. The use of H₂ is to be applied in production as well as in logistics as part of the hydrogen mobility at the site, for example to enable heavy goods transport within the company using hydrogen-powered vehicles.



We create chemistry

BASF Schwarzheide GmbH | At the chemical site, there is conventional H₂ production with moderate demand so far. The switch to CO₂-free H₂ technologies offers an improved product carbon footprint, opportunities in the circular economy and in mobility or energy conversion. The availability of climate neutrally produced hydrogen promotes the attractiveness for investments in the production of new chemical products and is an important prerequisite for a CO₂-neutral chemical production site of the BASF Group.



CEMEX Zement GmbH | CEMEX would like to use hydrogen, on the one hand, to chemically process captured CO₂ from cement production with hydrogen into synthetic hydrocarbons. In addition, hydrogen is to be used in kiln operation to optimize the combustion process and thus increase efficiency.



Eine Energie voraus

ENERTRAG SE | ENERTRAG is one of the largest renewable energy companies in Germany and the largest in Brandenburg. We develop, build, own and operate integrated energy plants that reliably generate electricity, green hydrogen and heat from wind and solar energy. We are always one energy ahead – be it in grid solutions, storage solutions or sector coupling with power-to-heat or green hydrogen power plants.



EWE GASSPEICHER GmbH | With activities along the entire value chain, EWE is making its contribution to the development of a green hydrogen economy. The HyCAVmobil hydrogen storage project in Rüdersdorf near Berlin is a key part of these plans, because proving that hydrogen can be safely stored in underground cavities and once extracted, is of appropriate quality for future applications is an important step towards transferability to large cavern storage facilities. This would be an important basis for making green hydrogen storable in large quantities and usable according to demand, and for achieving the climate goals that have been set. EWE is currently testing the operation of hydrogen storage with various injection and withdrawal scenarios.



Lausitz Energie Kraftwerke AG (LEAG) | The production, marketing, use and conversion of green hydrogen is an essential part of LEAG's transformation into a green powerhouse. LEAG plans to use its own renewable energy generation from the Gigawattfactory to offer customer-oriented H₂ solutions in Brandenburg and to feed hydrogen into an H₂ network respectively draw from it to secure the electricity supply.



PCK Raffinerie GmbH | PCK was a pioneer in the use of bio-based components in the refinery process and produces various high-quality biofuel components. In the course of the transformation, PCK is working on various sustainable projects and with different partners. The aim is to optimally incorporate the regional surpluses of green energy (wind and solar) and the available industrial sites into this process for the production of climate-neutral hydrogen and other products.



VNG | VNG is an energy service provider based in Leipzig. VNG is working on projects along the green gases value chain with the aim of enabling real innovation leaps in eastern Germany in this field. With greenHyBB, a project for the Brandenburg production and use of green hydrogen is being developed.

Further partner companies



CONTACT

The Brandenburg Hydrogen Cluster is coordinated by the Brandenburg Ministry of Economic Affairs, Labour and Energy (MWAE) and the Cluster Energy Technology at the Economic Development Agency Brandenburg (WFBB).

Dr. Stefan Reiß
Ministry of Economic Affairs, Labour and
Energy of the State of Brandenburg (MWAE)
Stefan.Reiss@MWAE.Brandenburg.de
Tel: +49 331 - 866-1698

Birgit Kaminski
Wirtschaftsförderung Land
Brandenburg GmbH (WFBB)
birgit.kaminski@wfbb.de
Tel: +49 331 - 730 61-426

Holger Sprung
ONTRAS Gastransport GmbH
Corporate development
holger.sprung@ontras.com
Tel: +49 341 - 27111-2534



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